

Claims

What is claimed is:

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- [c1] A method for increasing the thermal stability of a well fluid comprising:
mixing an effective amount of a miscible amine in the well fluid, wherein the well
fluid comprises a natural polymer.
- [c2] The method of claim 1, wherein the miscible amine comprises an amine selected
from the group consisting of primary, secondary and tertiary amines, and mixtures
thereof.
- [c3] The method of claim 1, wherein the amine comprises about 0.2% to about 20% by
weight of the well fluid.
- [c4] The method of claim 3, wherein the amine comprises about 0.5% to about 10% by
weight of the well fluid.
- [c5] The method of claim 3, wherein the natural polymer comprises about 0.1% to
about 5% by weight of the well fluid.
- [c6] The method of claim 4, wherein the natural polymer comprises about 0.3% to
about 1.5% by weight of the well fluid.
- [c7] The method of claim 1, wherein the natural polymer comprises
hydroxyethylcellulose.
- [c8] The method of claim 1, wherein the miscible amine comprises triethanol amine.
- [c9] A method for increasing the thermal stability of a well fluid comprising:
mixing about 0.1% to about 50% by weight of a miscible amine into the well fluid,
wherein the well fluid comprises a natural polymer.

- SUB
C1
- 09901498-070901
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- [c10] The method of claim 9, wherein the miscible amine comprises an amine selected from the group consisting of primary, secondary and tertiary amines, and mixtures thereof.
- [c11] The method of claim 10, wherein the amine comprises about 0.2% to about 20% by weight of the well fluid.
- [c12] The method of claim 11, wherein the amine comprises about 0.5% to about 10% by weight of the well fluid.
- [c13] The method of claim 11, wherein the natural polymer comprises about 0.1% to about 5% by weight of the well fluid.
- [c14] The method of claim 12, wherein the natural polymer comprises about 0.3% to about 1.5% by weight of the well fluid.
- [c15] The method of claim 9, wherein the natural polymer comprises hydroxyethylcellulose.
- [c16] The method of claim 9, wherein the miscible amine comprises triethanol amine.
- [c17] A thermally stable well fluid comprising:
a natural polymer; and
an effective amount of miscible amine.
- [c18] The well fluid of claim 17, wherein the miscible amine comprises an amine selected from the group consisting of primary, secondary and tertiary amines, and mixtures thereof.
- [c19] The well fluid of claim 18, wherein the amine comprises about 0.2% to about 20% by weight of the well fluid.

- [c20] The well fluid of claim 19, wherein the amine comprises about 0.5% to about 10% by weight of the well fluid.
- [c21] The well fluid of claim 19, wherein the natural polymer comprises about 0.1% to about 5% by weight of the well fluid.
- [c22] The well fluid of claim 20, wherein the natural polymer comprises about 0.3% to about 1.5% by weight of the well fluid.
- [c23] The well fluid of claim 17, wherein the natural polymer comprises hydroxyethylcellulose.
- [c24] The well fluid of claim 17, wherein the miscible amine comprises triethanol amine.
- [c25] A method of treating a well comprising:
injecting a well treating fluid into the well, wherein the well treating fluid comprises a natural polymer and a miscible amine.
- [c26] The method of claim 25, wherein the miscible amine comprises an amine selected from the group consisting of primary, secondary and tertiary amines and mixtures thereof.
- [c27] The method of claim 25, wherein the natural polymer comprises hydroxyethylcellulose.
- [c28] The method of claim 25, wherein the miscible amine comprises triethanol amine.
- [c29] The method of claim 25, wherein the miscible amine comprises about 0.1 % to about 50% by weight of the well treating fluid.
- [c30] The method of claim 29, wherein the miscible amine comprises about 0.2% to about 20% by weight of the well treating fluid.

SUB
C-7
09901498-070901

- [c31] The method of claim 29, wherein the natural polymer comprises about 0.1% to about 5% by weight of the well fluid.
- [c32] The method of claim 30, wherein the natural polymer comprises about 0.3% to about 1.5% by weight of the well fluid.
- [c33] A method for increasing hydration time and transition temperature in a well fluid comprising:
mixing an effective amount of a miscible amine with a natural polymer.
- [c34] The method of claim 33, wherein the miscible amine comprises an amine selected from the group consisting of primary, secondary and tertiary amines and mixtures thereof.
- [c35] The method of claim 33, wherein the natural polymer comprises hydroxyethylcellulose.
- [c36] The method of claim 33, wherein the miscible amine comprises triethanol amine.
- [c37] The method of claim 33, wherein the miscible amine comprises about 0.1 % to about 50% by weight of the well fluid.
- [c38] The method of claim 37, wherein the miscible amine comprises about 0.2% to about 20% by weight of the well fluid.